River Herring Technical Expert Working Group (TEWG)

Habitat Subgroup Webinar/Conference Call August 13, 2014 10:00 – 11:30 a.m.

Summary

I. Overview

The Habitat Subgroup of the River Herring Technical Expert Working Group was established to "consider the impacts from various factors affecting river herring habitat including, but not limited to, connectivity (e.g., fish passage), water quality/quantity, and appropriate habitat characteristics". Alison Bowden and Jeffrey Pierce, co-chairs of the Habitat Subgroup, convened a call on August 13, 2014, to continue discussions with the group. The draft agenda included discussing the framework for existing research, an update on the habitat mapping project, and prioritizing research needs. This meeting summary includes the primary discussion topics and outcomes to contribute to future TEWG discussions. The information provided below reflects individual expert opinion and not consensus.

II. Key Topics

The below includes a list of individual expert opinion provided by Habitat Subgroup members or the public on various overarching topics:

- Members provided input on the spreadsheet to compile current and past research.
 Members agreed that research since 2008 will be considered and added to the document.
- The dam mapping project is using digital elevation models and dam inventory to determine impacts on available habitat if dams are removed. The whole Atlantic coast of the US is included in the mapping project. Some related products by US subregion are available here:

 $\frac{https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/freshwater/stream/Pages/default.aspx$

III. Key Outcomes

The below includes a list of individual expert opinions provided by participants related to specific threats, data gaps, research projects, conservation actions, information to be considered and/or monitoring (i.e., the identified research projects and/or conservation actions). These outcomes are listed in no particular order, and those related to other subgroups are also included in the "Cross-Cutting Issues" section below).

a. Threats

- Barriers to migration (e.g., dams & culverts)
- Land use and water quality

b. Data Gaps

- Habitat use in estuaries, particularly the role of structure, e.g., SAV, shellfish beds, marshes
- Effects of land use on habitat
- Distribution in rivers/estuaries Chesapeake Bay-South
- How tidal cycles influence habitat calculations and considerations

c. Research Projects

- Determine correct size and frequency of acoustic tags for river herring and compatibility with existing arrays
- Investigate characteristics of streams that make them good spawning/rearing habitat
- Investigate characteristics of estuaries that make them good rearing/staging habitat
- Investigate utility of new detection techniques such as eDNA to determine distribution (possibly rough abundance?)

d. Monitoring

• A coordinated monitoring strategy along the East Coast that is comparable between regions would provide valuable information about river herring.

IV. Next Steps

The Habitat Subgroup discussed the following next steps:

- Claire and Trevor will work on to finalize spreadsheet outlining everyone's work and research, which includes monitoring.
- Habitat Subgroup members will fill out the spreadsheet and email it to Marin by August 31, 2014
- Marin will compile the spreadsheet discussed and work on a system to allow everyone access to the document online.
- Marin will find the habitat use map from Habitat Management Series Number 9 (ASMFC) and determine if sharing the information is possible
- Trevor will look into obtaining geolocations of culverts and dams on streams and rivers in Brunswick and Nova Scotia; survey data from six US northeast states is available here: http://www.streamcontinuity.org/cdb2/search_crossings.cfm

V. Cross-Cutting Subgroup Issues

The following cross-cutting subgroups issues were discussed and will be further considered by the TEWG and its Ecosystem Integration Committee.

- Genetics and consequently the Genetics Subgroup may play a role in the habitat of river herring; this will be investigated further as the Habitat Subgroup expertise document is compiled.
- The distribution of fish in rivers, estuaries & at sea is linked with stock status and fisheries
- Climate change influences key habitat characteristics at all life stages

VI. Participants

a. Subgroup Members

The affiliation of each member can be found on the subgroup roster available at the TEWG Habitat Subgroup website:

http://www.nero.noaa.gov/protected/riverherring/tewg/habitat/index.html

Alison Bowden Ben Lenz Jeff Pierce Dennis Logan Eric Hilton Tim Brush Fritz Rohde Jeff Pierce Steve Gephard Jim Turek Claire Enterline Kevin Sullivan Steve Mcininch Matt Ogburn Mary Andrews Mike Bailey Jillian Osborne Dave Coughlan Ben Gahagan Steve Gephard Tara Lake Trevor Avery Roger Rulifson Alan Weaver Wilson Laney Sean McDermott

Carolyn Hall

b. Staff

Marin Hawk

Diane Borggaard

VII. Meeting Materials

The following materials were provided to support the meeting. Additional information can be found at the TEWG Habitat Subgroup website:

http://www.nero.noaa.gov/protected/riverherring/tewg/habitat/index.html

- a. Draft Agenda
- b. Draft Working Spreadsheet
- c. Draft River Herring Research list

River Herring Technical Expert Working Group (TEWG) Habitat Subgroup Conference Call and Webinar August 13, 2014 10:00 am

Call-In Number: 1-888-394-8197 Passcode: 815277

Webinar: https://www3.gotomeeting.com/register/422090726

Draft Agenda

Meeting Purposes:

Discuss Habitat research priorities and framework for existing research compilation

10 AM Welcome, Introductions and Getting Organized (*A. Bowden and J. Pierce*)

10:15 AM River Herring Habitat SubGroup – approach and expected products

- 1) Framework for existing research (T. Avery and R. Rulifson)
 - a. Are there other examples of frameworks like this that we could draw on and update?
- 2) Update on habitat mapping project (R. Rulifson and T. Trinko Lake)
- 3) River Herring research priorities (A. Bowden and D. Borgaard)

11:15 AM General questions and comments from Habitat subgroup

11:30 AM Public comment

11:45 AM Wrap up and next steps

12:00 PM Adjourn